Job title | Lead Physics Support Scientist
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Division | Medical Sciences
Department | Wellcome Centre for Integrative Neuroimaging, Nuffield Department of Clinical Neurosciences
Location | WIN@FMRIB, John Radcliffe Hospital, Headington, Oxford
Grade and salary | Grade 8: £39,992 - £47,722 per annum
Hours | Full Time 37.5 hours
Contract type | Fixed-term (5 years)
Reporting to | Stuart Clare, Director of Operations, Wellcome Centre for Integrative Neuroimaging
Vacancy reference | 134544
Additional information | 

The role

Working within the Wellcome Centre for Integrative Neuroimaging (WIN) Operations Team and the WIN Physics Group, and under the supervision of the Director of Operations, the post-holder will oversee the translation of cutting-edge MRI physics techniques to basic and clinical neuroscience.

Leading a small team of MR physicists, the post-holder will manage a portfolio of MR physics development projects across the Centre’s 3T and 7T human scanners, and the 3T large-bore and 7T small-bore animal scanners. The post-holder will work with the Experiment Support Team and WIN Management Board to identify, prioritize and design projects in MR sequence development and image reconstruction that are aligned with Centre strategy. As lead of the physics support team, the post-holder will oversee the development of robust protocols, provide expert advice to Centre users to, and promote and enable use of state-of-the-art MRI hardware and techniques. A key focus of the role will be to translate methods across scanning platforms and bring the latest methods to the Centre’s users.

As well as being part of the Centre’s Operations Team, the post holder will be a member of the WIN Physics Group. They will work collaboratively with basic and clinical neuroscientists on a variety of medium- and long-term projects that align with the Centre’s overall strategic vision. In addition, it is expected that some of the post-holder’s work will lead to novel techniques and/or research findings leading to personal academic outputs.
Responsibilities

Duties
- Lead the MR Physics Development Support team.
- Work with Centre PIs to identify, evaluate and implement solutions to unmet needs in MRI acquisition in a timely manner.
- Oversee the implementation of pulse sequences, including published methods and novel approaches for structural and functional MRI of rodent, non-human primate and human subjects.
- Oversee the implementation of scanning protocols.
- Work collaboratively within the Centre, with industry and the wider academic community to develop the best methods in neuroimaging.
- Integrate MRI with other methodologies such as electrical and physiological recording, brain stimulation and real-time feedback.
- Ensure quality assurance for the scanner hardware and software.
- Supervise and support the members the MR Physics Development team, including the timely delivery of projects and publication of methods (where appropriate).
- Promote the integration of the Centre’s three sites, including working across all sites and developing common platforms and procedures (where appropriate).
- Provide teaching and training to others in the Centre in sequence development and related methods.
- Ensure that new methods and combinations of methods that are developed are safe and to provide advice in MR safety to the relevant users of the methods and equipment.
- Collaborate with the other team leaders in the Operations Team to ensure WIN's continued status as a world-leading neuroimaging centre.

Selection criteria

Essential
- PhD in physics or engineering using MRI in human subjects
- Depth of knowledge of a broad range of MR physics techniques relevant to neuroimaging
- Extensive experience in MRI sequence development and image reconstruction
- Programming expertise in C++, Matlab/Python and UNIX scripting
- Skills with data and/or image analysis, particularly of neuroimaging data
- Demonstrable skills in working with and communicating to scientists from a range of backgrounds
- Excellence in time management, attention to detail and project delivery

Other general responsibilities
- Be accountable for professional conduct in relation to projects and co-workers in the Centre.
- Undertake such other duties as may be required from time to time that are commensurate with the grade and responsibilities of this post.
• Conduct themselves with due regard to the University Equal Opportunities and Data Protection policies.

Desirable

• Programming experience in Siemens IDEA development environment
• Programming experience in Bruker development environment
• Experience in management of staff or supervision of students.
• Experience with image reconstruction, particularly in Siemens ICE environment and/or Gadgetron
• Experience in MRI at 7 Tesla or above
• Background in neuroimaging analysis, particularly using FSL
• Expertise in neuroimaging, particularly functional or diffusion imaging

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford’s researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual’s unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe’s most entrepreneurial universities. Income from external research contracts in 2015/16 exceeded £537.4m and we rank first in the UK for university spinouts, with more than 130 companies created to date. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information please visit www.ox.ac.uk/about/organisation

Medical Sciences Division

The Medical Sciences Division is an internationally recognized centre of excellence for biomedical and clinical research and teaching, and the largest academic division in the University of Oxford. World-leading programmes, housed in state-of-the-art facilities, cover the full range of scientific endeavour from the molecule to the population. With our NHS partners we also foster the highest possible standards in patient care.

For more information please visit: www.medsci.ox.ac.uk
The Nuffield Department of Clinical Neurosciences
The Nuffield Department of Clinical Neurosciences (NDCN), led by Prof Irene Tracey, has over 350 staff and 100 postgraduate students. NDCN has an established research and teaching portfolio with a national and international reputation for excellence.

NDCN is based in high quality research and clinical facilities in the West Wing of the John Radcliffe Hospital, alongside the Department's world-class Oxford Centre for Functional MRI of the Brain (FMRIB), the Weatherall Institute of Molecular Medicine (which houses 3 of our research groups) and provides the ideal facilities to translate research from bench to bedside. In keeping with the award of NIHR Comprehensive Biomedical Research Centre status, to a partnership between Oxford University and the Oxford Radcliffe Hospitals NHS Trust, we have developed a highly integrated and interdisciplinary environment in which research, teaching, clinical training and clinical care interact. This enables us to establish new approaches to the understanding, diagnosis and treatment of brain diseases. To this end the Department fosters collaborations worldwide and warmly welcomes visiting scientists, clinical fellows and students. The Department comprises five sections:

For more information visit: www.ndcn.ox.ac.uk

Nuffield Division of Anaesthesia
NDA is led by Associate Professor Andrew Farmery. The NDA is committed to the development and maintenance of internationally competitive research programmes in pain and consciousness; respiration and hypoxia; adult and neuro-intensive care; simulation and human factors training.

For more information visit www.nda.ox.ac.uk

Division of Clinical Neurology
DCN is led by Professor Kevin Talbot. DCN is committed to the development of research programs that improve understanding of the nervous system in health and disease.

For more information visit www.dcn.ox.ac.uk

Centre for Functional Magnetic Resonance Imaging of the Brain
FMRIB is led by Professor Heidi Johansen-Berg. FMRIB is an internally recognised human neuroimaging centre housing both 3T and 7T scanners. The Centre has strong programmes of research in MR physics, image analysis and the applications of neuroscience in health and disease.

For more information visit www.fmrib.ox.ac.uk

Nuffield Laboratory of Ophthalmology
NLO is led by Professor Russell Foster, who leads the Sleep & Circadian Neuroscience Institute. NLO pursues scientific and clinical research into a range of areas related to vision, the eye and circadian neuroscience.

For more information visit www.nlo.ox.ac.uk

Centre for the Prevention of Stroke & Dementia
CPSD is led by Professor Peter Rothwell. The centre carries out research that increases understanding of the causes of cerebrovascular disease. Its aims are to improve prevention of stroke and dementia by earlier diagnosis, more reliable prognostication, and more effective use of existing preventive treatments in routine clinical practice.

For more information visit https://www.ndcn.ox.ac.uk/divisions/cpsd
Working at NDCN

NDCN actively promotes a healthy work life balance amongst employees through a number of family friendly policies. See [http://www.admin.ox.ac.uk/personnel/staffinfo/benefits/](http://www.admin.ox.ac.uk/personnel/staffinfo/benefits/) for further information.

The University of Oxford is a member of the [Athena SWAN Charter](http://www.admin.ox.ac.uk/personnel/staffinfo/benefits/) and holds an institutional Bronze Athena SWAN award. The Department of Clinical Neurosciences holds a departmental Silver Athena award in recognition of its efforts to introduce organisational and cultural practices that promote gender equality and create a better working environment for both men and women.

How to apply

Before submitting an application, you may find it helpful to read the ‘Tips on applying for a job at the University of Oxford’ document, at [www.ox.ac.uk/about/jobs/supportandtechnical/](http://www.ox.ac.uk/about/jobs/supportandtechnical/).

If you would like to apply, click on the **Apply Now** button on the ‘Job Details’ page and follow the on-screen instructions to register as a new user or log-in if you have applied previously. Please provide details of two referees and indicate whether we can contact them now.

You will also be asked to upload a CV and a supporting statement. The supporting statement must explain how you meet each of the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependants).

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

Please upload all documents **as PDF files** with your name and the document type in the filename.

All applications must be received by **midday** on the closing date stated in the online advertisement.

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**Information for priority candidates**

A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing departments.

*If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments)*

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Should you experience any difficulties using the online application system, please email recruitment.support@admin.ox.ac.uk. Further help and support is available from [www.ox.ac.uk/about_the_university/jobs/support/](http://www.ox.ac.uk/about_the_university/jobs/support/). To return to the online application at any stage, please go to: [www.recruit.ox.ac.uk](http://www.recruit.ox.ac.uk).
Please note that you will be notified of the progress of your application by automatic emails from our e-recruitment system. Please check your spam/junk mail regularly to ensure that you receive all emails.

Important information for candidates

Pre-employment screening
Please note that the appointment of the successful candidate will be subject to standard pre-employment screening, as applicable to the post. This will include right-to-work, proof of identity and references. We advise all applicants to read the candidate notes on the University’s pre-employment screening procedures, found at:
www.ox.ac.uk/about/jobs/preemploymentscreening/.

The University's policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for all academic posts and some academic-related posts. From 1 October 2017, the University has adopted an EJRA of 30 September before the 69th birthday for all academic and academic-related staff in posts at grade 8 and above. The justification for this is explained at:
www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/.

For existing employees, any employment beyond the retirement age is subject to approval through the procedures: www.admin.ox.ac.uk/personnel/end/retirement/acrelretire8+/.

From 1 October 2017, there is no normal or fixed age at which staff in posts at grades 1–7 have to retire. Staff at these grades may elect to retire in accordance with the rules of the applicable pension scheme, as may be amended from time to time.

Equality of Opportunity

Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.
Benefits of working at the University

University Club and sports facilities
The University Club provides social, sporting and hospitality facilities. It incorporates a bar, café and sporting facilities, including a gym. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See: www.club.ox.ac.uk and www.sport.ox.ac.uk/oxford-university-sports-facilities.

Information for international staff (or those relocating from another part of the UK)
If you are relocating to Oxfordshire from overseas, or elsewhere in the UK, the University's International Staff website includes practical information related to moving to and settling in Oxford such as advice on immigration, relocation, accommodation, or registering with a doctor. See: www.internationalstaffwelcome.admin.ox.ac.uk/

The University of Oxford Newcomers’ Club
The University of Oxford Newcomers’ Club is an organisation run by volunteers that aims to assist the partners of new staff to settle into Oxford and to provide them with an opportunity to meet people in the area. See www.newcomers.ox.ac.uk/

Childcare
The University has excellent childcare services with five University nurseries, as well as University-supported places at many other private nurseries. For full details including how to apply and the costs, see www.admin.ox.ac.uk/childcare.

Family-friendly benefits
The University subscribes to My Family Care (www.admin.ox.ac.uk/personnel/staffinfo/benefits/family/mfc/) and staff are eligible to register for emergency back-up childcare and adultcare services, a 'speak to an expert' phone line and a wide range of guides and webinars through a website called the Work + Family space.

Disabled staff
We are committed to supporting members of staff with disabilities or long-term health conditions. Please visit www.admin.ox.ac.uk/eop/disab/staff for further details including information about how to make contact, in confidence, with the University’s Staff Disability Advisor.

Staff networks
The University has a number of staff networks including the Oxford Research Staff Society, BME staff network, LGBT+ staff network and a disabled staff network. You can find more information at www.admin.ox.ac.uk/eop/inpractice/networks/

Other benefits
Staff can enjoy a range of other benefits such as free visitor access to the University’s colleges and the Botanic Gardens as well as a range of discounts. See www.admin.ox.ac.uk/personnel/staffinfo/benefits